

Application No.: 10/826,599

Docket No.: MWS-081RCE

**REMARKS**

In this Response, Applicant amends claims 1-5, 7-14, 16, 18, 19, 23-25 and 28, and cancels claim 15. Claims 1-14 and 16-30 are currently pending, of which claims 1, 19, 23, 24, 25 and 28 are independent. No new matter has been added. Support for the claim amendments can be found at least in previously presented claims 6 and 22 and on page 13 of Applicant's specification.

**I. Rejection of Claims 1-5, 7, 8, 10-14 and 16-30 under 35 U.S.C. § 102(e)**

In the Office Action, claims 1-5, 7, 8, 10-14 and 16-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent Publication Number 2004/0034846 to Ortal (hereafter "Ortal") (Office Action, paragraph 5). Applicant respectfully traverses the 35 U.S.C. § 102(e) rejection of claims 1-5, 7, 8, 10-14 and 16-30 as set forth below.

**A. Claim 1**

Amended independent claim 1 recites:

"In a graphical modeling environment, a method comprising:  
receiving a user request to define a parameter or a setting of  
a block in a simulatable block diagram model;  
*in response to the user request, generating a preview of  
code representative of code for the block prior to generation of  
code for the simulatable block diagram model; and*  
displaying the preview of the code on a graphical user  
interface." [emphasis added]

Applicant respectfully submits that Ortal fails to disclose at least the following feature of amended independent claim 1: *"in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the simulatable block diagram model."*

Claim 1 requires generating a preview of code in response to a user request, in which the user request defines a parameter or a setting of a block in a simulatable block diagram model. Ortal does not disclose any of these features, as will be discussed in more detail below.

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Ortal provides a UML model including a number of elements implementable as software source code (Ortal, paragraph 0079). Software source code is generated corresponding to the elements of the model, and portions of the source code are associated with the elements (Ortal, paragraph 0079). In response to a user modifying a model element, Ortal modifies the source code to correspond to the element that was modified (Ortal, paragraph 0079).

Ortal does not disclose generating a preview of code for a block "in a simulatable block diagram model," as recited in claim 1. Ortal discusses code generation only for **UML model** elements, and does not disclose any such operation in a **simulatable block diagram model**, as required by claim 1.

Ortal also does not disclose generating a preview of code in response to a user request defining "a parameter or a setting of a block in a simulatable block diagram model," as recited in claim 1. Ortal discusses modifying **elements in a UML model**, e.g. renaming a class, adding an attribute to a class, by regenerating source code files associated with the elements (Ortal, paragraphs 0044 and 0051). However, Ortal does not disclose generating a preview of code in response to a user request to define a **parameter or a setting of a block** in a simulatable block diagram model, as required by claim 1. Any modification of the code in Ortal is not in response to a user request to define a parameter or a setting of a block.

As such, Ortal fails to disclose "*in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the simulatable block diagram model*," as recited in claim 1.

As discussed above, Ortal does not disclose each and every element of claim 1. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 1 under U.S.C. § 102(e).

**B. Claims 2-5, 7, 8, 10-14 and 16-18**

Claims 2-5, 7, 8, 10-14 and 16-18 depend from claim 1 and, as such, incorporate each and every element of claim 1. Therefore claims 2-5, 7, 8, 10-14 and 16-18 are allowable for at least the same reasons discussed above for claim 1. Accordingly, Applicant respectfully

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requests the Examiner to reconsider and to withdraw the rejection of claims 2-5, 7, 8, 10-14 and 16-18 under U.S.C. § 102(e).

**C. Claim 19**

Amended independent claim 19 recites:

“In a graphical modeling environment, a method comprising:  
*automatically updating a preview of code representative  
of code for a block in a simulatable block diagram model in  
response to a user altering a parameter or a setting of the block;*  
and  
displaying the updated preview of the code on a graphical  
user interface.” [emphasis added]

Applicant respectfully submits that Ortal does not disclose at least the following feature of claim 19: “*automatically updating a preview of code representative of code for a block in a simulatable block diagram model in response to a user altering a parameter or a setting of the block.*”

As discussed above in connection with claim 1, Ortal does not disclose a preview of code representative of code for a block. As such, Ortal also does not disclose updating a preview of representative of code for a block, as required by claim 19.

Ortal also does not disclose updating a preview of code in response to a user altering “a parameter or a setting of the block” in the simulatable block diagram model, as recited in claim 19. Ortal discusses modifying elements in a UML model (Ortal, paragraphs 0044 and 0051). However, Ortal does not disclose updating a preview of code in response to a user altering a parameter or a setting of a block in a simulatable block diagram model, as required by claim 19. Any modification of the code in Ortal is not in response to a user altering a parameter or a setting of a block.

As such, Ortal does not disclose the above feature of claim 19. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 19 under U.S.C. § 102(e).

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**D. Claims 20-22**

Claims 20-22 depend from claim 19 and, as such, incorporate each and every element of claim 19. Therefore claims 20-22 are allowable for at least the same reasons discussed above for claim 19. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 20-22 under U.S.C. § 102(e).

**E. Claim 23**

Amended independent claim 23 recites:

"A computer-readable storage medium for use with an electronic device having a processor, the medium storing instructions executable by the processor of the electronic device, the medium storing:

one or more instructions for receiving a user request to define a parameter or a setting of a block in a simulatable block diagram model;

*one or more instructions for generating a preview of code representative of code for the block in the block diagram model prior to generation of code for the block diagram model, in response to the user request, and*

one or more instructions for displaying the preview of the code on a graphical user interface." [emphasis added]

Applicant respectfully submits that the Ortal reference fails to disclose or suggest at least the following feature of claim 23: "*one or more instructions for generating a preview of code representative of code for the block in the block diagram model prior to generation of code for the block diagram model, in response to the user request.*" As discussed above in connection with claim 1, Ortal does not disclose a preview of code representative of code for a block. As such, Ortal does not disclose the above feature of claim 23. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 23 under U.S.C. § 102(e).

**F. Claim 24**

Amended independent claim 24 recites:

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"A computer-readable storage medium for use with an electronic device having a processor, the medium storing instructions executable by the processor of the electronic device, the medium storing:

*one or more instructions for automatically updating a preview of code representative of code for a block in a simulatable block diagram model in response to a user altering a parameter or a setting of the block; and*

*one or more instructions for displaying the updated preview of the code on a graphical user interface."* [emphasis added]

Applicant respectfully submits that Ortal does not disclose at least the following feature of claim 24: *"one or more instructions for automatically updating a preview of code representative of code for a block in a simulatable block diagram model in response to a user altering a parameter or a setting of the block."* As discussed above in connection with claim 19, Ortal does not disclose updating a preview of code representative of code for a block... in response to a user altering a parameter or a setting of the block. As such, Ortal does not disclose the above feature of claim 24. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 24 under U.S.C. § 102(e).

#### G. Claim 25

Amended independent claim 25 recites:

"A system for generating and displaying a graphical programming application, comprising:

user-operable input means for inputting data to the graphical programming application;

a display device for displaying a simulatable block diagram model; and

an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including instructions for providing a code preview to a user on the display device, *the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model after the user defines a property of the block using the user-operable input means, and the preview of the code being created by generating an estimation*

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***of the code for the block using a predictor mechanism."***  
[emphasis added]

Claim 25 has been amended to incorporate the subject matter of previously presented claim 6. The Examiner points to United States Patent Number 6,175,948 to Miller (hereafter "Miller") at column 7, lines 10-25 as disclosing or suggesting ***"the preview of the code is created by generating an estimation of the code for the block using a predictor mechanism,"*** as recited in claim 25 (Office Action, paragraph 7).

Applicant respectfully disagrees with the Examiner and submits that Ortal and Miller, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of claim 25: ***"the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model after the user defines a property of the block using the user-operable input means, and the preview of the code being created by generating an estimation of the code for the block using a predictor mechanism."***

Ortal does not disclose or suggest ***"the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model,"*** as recited in claim 25. As discussed above in connection with claim 1, Ortal does not disclose a preview of code representative of code for a block. As such, Ortal cannot disclose the above feature of claim 25.

Furthermore, Ortal does not disclose or suggest ***"the preview of the code being created by generating an estimation of the code for the block using a predictor mechanism,"*** as recited in claim 25. Ortal discusses generating only the source code for model elements, and does not address estimating the code for a model element using a predictor mechanism.

Thus, Ortal does not disclose or suggest ***"the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model after the user defines a property of the block using the user-operable input means, and the preview of the code being created by generating an estimation of the code for the block using a predictor mechanism,"*** as recited in claim 25. The teachings of Miller do not supplement Ortal in such a way as to cure the failure of Ortal to disclose or suggest the above feature of claim 25.

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Miller relates to a waveform compiler method that employs top-down system decomposition coupled with component based design development (Miller, abstract). Miller captures a user design in a series of parameterized models (Miller, abstract).

Miller does not disclose or suggest *"the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model,"* as recited in claim 25. Miller does not address generating a preview of code representative of code for a block in a simulatable block diagram model, as required by claim 25.

Furthermore, Miller does not disclose or suggest *"the preview of the code being created by generating an estimation of the code for the block using a predictor mechanism,"* as recited in claim 25. Miller discusses estimating how a software component may perform in an application. Miller estimates the performance of a component, but does not address generating an estimate of the code for a block. In contrast, claim 25 requires generating an estimate of the code for a component using a predictor mechanism.

Thus, Miller does not disclose or suggest *"the code preview displaying a preview of code representative of code for a block in the simulatable block diagram model after the user defines a property of the block using the user-operable input means, and the preview of the code being created by generating an estimation of the code for the block using a predictor mechanism,"* as recited in claim 25.

As discussed above, Ortal and Miller, alone or in any reasonable combination, fail to disclose or suggest each and every element of claim 25. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 25 under U.S.C. § 102(e).

#### H. Claims 26 and 27

Claims 26 and 27 depend from claim 25 and, as such, incorporate each and every element of claim 25. Therefore claims 26 and 27 are allowable for at least the same reasons discussed above for claim 25. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 26 and 27 under U.S.C. § 102(e).

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I. Claim 28RECEIVED  
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Amended independent claim 28 recites:

"A system for generating and displaying a graphical programming application, comprising:  
user-operable input means for inputting data to the graphical programming application;  
a display device for displaying a simulatable block diagram model; and  
an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including instructions for automatically updating a preview of code representative of code for a setting for a block in the simulatable block diagram model in response to the user altering the setting and displaying the updated preview of the code, and *receiving a cancellation of the altering of the setting after displaying the updated preview of the code.*" [emphasis added]

Claim 28 has been amended to incorporate the subject matter of previously presented claim 22. The Examiner points to Ortal at column 8, paragraph 0125 as disclosing "*receiving a cancellation of the altering of the setting after displaying the updated preview of the code,*" as recited in claim 28.

Applicant respectfully submits that Ortal fails to disclose at least the following feature of claim 28: "*receiving a cancellation of the altering of the setting after displaying the updated preview of the code.*"

Applicant respectfully disagrees with the Examiner because Ortal merely discusses renaming a class and does not disclose canceling an altering of a setting. A user can rename a class and focus on a code view 411 to display the code of a dependent class (Ortal, paragraph 0125). A code manager 401 can invoke a code generator 402 to regenerate files 412-415 in response to the user renaming the class (Ortal, paragraph 0125). The code view 411 is then updated to reload the modified files which can then be displayed (Ortal, paragraph 0125).



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Thus, Ortal discusses making an altering to the setting of class, i.e. changing the name of the class. However, Ortal does not address canceling this altering after displaying the modified files, e.g. rolling back the name of the class to what it was before the renaming. As such, Ortal does not disclose "*receiving a cancellation of the altering of the setting after displaying the updated preview of the code,*" as recited in claim 28.

As discussed above, Ortal fails to disclose each and every element of claim 28. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 28 under U.S.C. § 102(e).

**J. Claims 29 and 30**

Claims 29 and 30 depend from claim 28 and, as such, incorporate each and every element of claim 28. Therefore claims 29 and 30 are allowable for at least the same reasons discussed above for claim 28. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 29 and 30 under U.S.C. § 102(e).

**II. Rejection of Claims 6, 9 and 15 under 35 U.S.C. § 103(a)**

**A. Claims 6 and 15**

Claims 6 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ortal in view of United States Patent Number 6,175,948 to Miller (hereafter "Miller"). Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claims 6 and 15 as set forth below.

Claim 15 has been canceled. As such, the 35 U.S.C. § 103(a) rejection of claim 15 is moot.

Claim 6 depends from and includes the features of claim 1.

Ortal has been summarized above in the rejection of claim 1.

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As discussed above in connection with claim 1, Ortal fails to disclose or suggest ***"in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the block diagram model,"*** as recited in claim 6. The teachings of Miller do not supplement Ortal in such a way as to cure the failure of Ortal to disclose or suggest the above feature of claim 6.

Miller also does not disclose or suggest ***"in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the block diagram model,"*** as recited in claim 6.

Miller discusses capturing user designs by generating parameterized models based on reusable components. However, Miller does not address generating a preview of code representative of code for a block. In contrast, claim 6 requires ***generating a preview of code representative of code for the block.***

Therefore, Ortal and Miller, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 6. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 6.

#### **B. Claim 9**

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ortal in view of United States Patent Publication Number 2005/0114832 to Manu (hereafter "Manu"). Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claim 9 as set forth below.

Claim 9 depends from and includes the features of claim 1.

Ortal has been summarized above in the rejection of claim 1.

As discussed above in connection with claim 1, Ortal fails to disclose or suggest ***"in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the block diagram model,"*** as recited in claim 9. The teachings of Manu do not supplement Ortal in such a way as to cure the failure of Ortal to disclose or suggest the above feature of claim 9.

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Manu relates to the modeling of code elements and structure of a programming code which enables code structure and flow to be visualized and which eliminates language-specific aspects (Manu, abstract). For example, one or more programming languages for which code is to be generated are selected, and code is generated from a functional model (Manu, abstract). Manu also does not disclose or suggest *"in response to the user request, generating a preview of code representative of code for the block prior to generation of code for the block diagram model,"* as recited in claim 9.

Therefore, Ortal and Manu, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 9. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 9.

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**CONCLUSION**

In view of the above remarks, Applicant believes the pending application is in condition for allowance and urge the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicant's attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-081RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: June 17, 2008

Respectfully submitted,

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